The American Journal of
CLINICAL NUTRITION

Official Journal of The American Society for Clinical Nutrition, Inc.

VOLUME 29, no. 7-12

July–December 1976

Copyright © 1976 by The American Society for Clinical Nutrition, Inc.

Number 7, July 1976

letters to the editor

689 Serum vitamin B_{12} levels in Puerto Rico. *R. Santini, and S. Millán*
689 The role of the combination of sucrose and milk in diabetes mellitus. *A. Wales*

original communications

691 Vitamin B_{12} levels and nerve conduction velocities in patients undergoing maintenance hemodialysis. *S. G. Rostand*
698 Comparative studies on the effect of cholesterol feeding on biliary composition. *K-J. Ho*
705 Effect of changes in dietary components on the serum bilirubin in Gilbert's syndrome. *B. F. Felsher*
710 Potentially useful criteria for judging nutritional adequacy. *D. R. Davis and R. J. Williams*
716 Studies of glycemia and glucosuria in diabetics after breakfast meals of different composition. *R. Arvidsson Lenner*
726 Specially designed sweeteners and food for diabetics—a real need? *R. Arvidsson Lenner*
734 Zinc nutrition of preschool children in the Denver Head Start program. *K. M. Hambidge, P. A. Walravens, R. M. Brown, J. Webster, S. White, M. Anthony, and M. L. Roth*
739 Utilization of a low-lactose milk. *S. J. Turner, T. Daly, J. A. Hourigan, A. G. Rand, and W. R. Thayer, Jr.*
745 Relationship of mineral status and intake to periodontal disease. *J. H. Freeland, R. J. Cousins, and R. Schwartz*
750 Vitamin B_6 nutriture of children with acute celiac disease, celiac disease in remission, and of children with normal duodenal mucosa. *L. Reinken, H. Zieglauer, and H. Berger*
754 Gastrointestinal bleeding and iron absorption in the experimental blind loop syndrome. *R. A. Giannella, and P. P. Toskes*
758 Decreased interferon production by leukocytes in marasmus. *L. Schlesinger, A. Ohlbaum, L. Grex, and A. Stekel*
762 Macrophage function in vitamin C-deficient guinea pigs. *R. Ganguly, M-F. Durieux, and R. H. Waldman*
766 Vitamin E and C levels in infants during the first year of life. *J. S. Vobecky, J. Vobecky, D. Shapcott, and R. Blanchard*
772 Measurement of iron absorption from composite meals. *E. Björn-Rasmussen, L. Hallberg, B. Magnusson, L. Rossander, B. Svanberg, and B. Arvidsson*
779 Intestinal bypass surgery for obesity decreases food intake and taste preferences. *G. A. Bray, R. E. Barry, J. R. Benfield, P. Castelnuovo-Tedesco, and J. Rodin*

perspectives in nutrition

784 A perspective view of dieting to lower the blood cholesterol. *H. M. Whyte, and N. Havenstein*

methods in nutrition

791 Determination of erythrocyte vitamin B_{12} activity. *R. Santini, and S. Millán*

international nutrition

794 Folate levels among various populations in central Iran. *R. M. Russell, F. Ismail-Beigi, K. Alfrasiabi, M. Rahimifar, D. Pourkamal, and H. Ronaghy*
799 Folate content of Iranian breads and the effect of their fiber content on the intestinal absorption of folic acid. *R. M. Russell, F. Ismail-Beigi, and J. G. Reinhold*

803 **reports of meetings**

807 **announcements**

812 **erratum**

Number 8, August 1976

letters to the editor

813 Liver carcinoma and pyridoxine deficiency. *A. Ajdukievicz and N. Pollitt*

brief communications

814 Zinc turnover in mice during pregnancy, lactation, and growth. *G. W. Evans and B. L. Reis*

original communications

817 Protein quality of two varieties of high-lysine maize fed alone and with black beans or mild to normal and depleted weanling rats. *L. M. Maffia, H. E. Clark, and E. T. Mertz*

825 Lack of antiscorbutic activity of ascorbate 2-sulfate in the rhesus monkey. *L. J. Machlin, F. Garcia, W. Kuenzig, H. E. Spiegel, and M. Brin*

832 Treatment of obesity by acupuncture. *M. S. Mok, L. N. Parker, S. Voina, and G. A. Bray*

836 Immunoglobulins and antibody response in children with protein-calorie malnutrition. *R. Suskind, S. Sirishinha, V. Vithayasai, R. Edelman, D. Damrongsak, C. Charupatana, and R. E. Olson*

842 An estimation of mineral losses through arm sweat of preadolescent children. *M. E. Harrison, C. Walls, M. K. Korslund, and S. J. Ritchey*

847 Age differences in vitamin B_6 status of 617 men. *C. S. Rose, P. György, M. Butler, R. Andres, A. H. Norris, N. W. Shock, J. Tobin, M. Brin, and H. Spiegel*

854 Vitamin D resistance in magnesium deficiency. *R. Medalle, C. Waterhouse, and T. J. Hahn*

859 Food iron absorption in human subjects. III. Comparison of the effect of animal proteins on nonheme iron absorption. *J. D. Cook and E. R. Monsen*

868 Malnutrition studies in *Macaca mulatta*. V. Effect on biochemical and cytochemical composition of major organs. *G. R. Kerr, A. Helmuth, J. A. Campbell, and M. el Lozy*

880 Behavior therapy for weight control: long-term results of two programs with nutritionists as therapists. *B. K. Paulsen, R. N. Lutz, W. T. McReynolds, and M. B. Kohrs*

889 Adrenocorticosteroids and corticosteroid binding globulins in protein calorie malnutrition. *A. M. Samuel, G. V. Kadival, B. D. Patel, and A. G. Desai*

895 Beneficial effects of a high carbohydrate, high fiber diet on hyperglycemic diabetic men. *T. G. Kiehm, J. W. Anderson, and K. Ward*

900 Effect of dietary control and exercise training on daily food intake and serum lipids in postmyocardial infarction patients. *E. W. Watt, J. Wiley, and G. F. Fletcher*

905 Effect of bran and cholestyramine on plasma lipids in monkeys. *M. R. Malinow, P. McLaughlin, L. Papworth, H. K. Naito, and L. A. Lewis*

perspectives in nutrition

912 Dual role of environmental deprivation and malnutrition in retarding intellectual development. *R. H. Barnes*

nutritional survey

918 Preliminary clinical and anthropometric findings from the first Health and Nutrition Examination Survey, USA, 1971–1972. *F. W. Lowenstein*

928 **announcements**

930 **book reviews**

932 **erratum**

Number 9, September 1976

letters to the editor

933 *Lupinus mutabilis* sweet—a potent food source from the Andean region. *F. T. Tello*
934 A new term for plant fibers in nutrition. *G. A. Spiller, G. Fassett-Cornelius, and G. M. Briggs*
935 Fortification of salt with iron. *H. Foy*
936 Bioavailable copper and iron in rat diets. *J. Hegenauer and P. Saltman*
938 Jejunoileal bypass. *E. E. Mason*

original communications

940 Ineffectiveness of human chorionic gonadotropin in weight reduction: a double-blind study. *M. R, Stein, R. E. Julis, C. C. Peck, W. Hinshaw, J. E. Sawicki, and J. J. Deller*
949 Fecal steroids in diarrhea. I. Acute shigellosis. *C. T. L. Huang, W. E. Woodward, R. B. Hornick, J. T. Rodriguez, and B. L. Nichols*
956 Effect of oral contraceptives and vitamin B_6 supplements on alanine and glycine metabolism. *D. P. Rose, J. E. Leklem, R. R. Brown, and C. Potera*
961 Influence of vitamin B_6 intake on the content of the vitamin in human milk. *K. D. West and A. Kirksey*
970 Mechanism and site of small intestinal uptake of vitamin D_3 in pharmacological concentrations. *D. Hollander*
976 Essential fatty acid deficiency in adults receiving total parenteral nutrition. *C. R. Fleming, L. M. Smith, and R. E. Hodges*
984 Postprandial glucose, insulin, free fatty acid, and growth hormone responses in children consuming all the day's protein in one meal. *W. C. MacLean, Jr., D. E. Hill, and G. G. Graham*
989 Improvement in jejunal enzyme adaptation in obese adult-onset diabetic patients following a 30 day fast. *F. B. Stifel, E. G. Lufkin, L. Hagler, H. L. Greene, O. D. Taunton, M. Wrensch, C. L. Miller, and R. H. Herman*
997 The significance and mechanism of an increased serum phenylalanine-tyrosine ratio during infection. *R. W. Wannemacher, Jr., A. S. Klainer, R. E. Dinterman, and W. R. Beisel*
1007 Effects of ethanol on bile acid and cholesterol metabolism. *P. J. Nestel, L. A. Simons, and Y. Homma*

special article

1016 Famine in Ethiopia—a brief review. *M. Gebre-Medhin and B. Vahlquist*

comments in biochemistry

1021 Arterial elastin. *R. B. Rucker and K. Tom*

perspectives in nutrition

1035 Diet, nutrition, and cancer. *E. N. Alcantara and E. W. Speckmann*

nutrition survey

1048 Nutritional status measures as predictors of nutritional risk in preschool children. *H. A. Guthrie*

international nutrition

1051 Growth and development of three Yugoslav populations in different ecological settings. *R. Buzina*

1060 **announcements**

1062 **book review**

1063 **erratum**

Number 10, October 1976

letters to the editor

1065 Objection to the Klevay hypothesis. *Z. R. Kime and M. Sifri*
1066 Reply to Drs. Kime and Sifri. *L. M. Klevay*
1067 Fatness similarities in adopted pairs. *S. M. Garn, S. M. Bailey, and I. T. T. Higgins*

brief communications

1069 The effect of parity and time between pregnancies on material hair chromium concentration. *J. R. Mahalko and M. Bennion*

original communications

1076 Energy balance during recovery from malnutrition. *D. W. Spady, P. R. Payne, D. Picou, and J. C. Waterlow*
1089 Complement activity in children with protein-calorie malnutrition. *R. Suskind, R. Edelman, P. Kulapongs, A. Pariyanonda, and S. Sirisinha*
1093 Wine versus ethanol in human nutrition. I. Nitrogen and calorie balance. *J. T. McDonald and S. Margen*
1104 25-Hydroxycholecalciferol levels in bedouins in the Negev. *S. Shany, J. Hirsh, and G. M. Berlyne*
1108 Calorigenic responses in obese and nonobese women. *M. L. Kaplan and G. A. Leveille*
1114 Growth of infants fed a zinc supplemented formula. *P. A. Walravens and K. M. Hambidge*
1122 Serum lipids in alcoholic patients with and without cirrhosis of the liver, with particular reference to endogenous familial hypertriglyceridemia. *A. J. Patek and S. Earampamoorthy*
1127 A longitudinal study of the protein, nitrogen, and lactose contents of human milk from Swedish well-nourished mothers. *B. Lönnerdal, E. Forsum, and L. Hambraeus*
1134 Breast milk composition in Ethiopian and Swedish mothers. II. Lactose, nitrogen, and protein contents. *B. Lönnerdal, E. Forsum, M. Gebre-Medhin, and L. Hambraeus*
1142 Food iron absorption in human subjects. IV. The effects of calcium and phosphate salts on the absorption of nonheme iron. *E. R. Monsen and J. D. Cook*
1149 Nutritional studies in the pregnant rhesus monkey—the effect of protein-calorie or protein

deprivation on growth of the fetal brain. *D. B. Cheek, A. B. Holt, W. T. London, J. H. Ellenberg, D. E. Hill, and J. L. Sever*

nutrition survey

1158 The incidence of anemia in residents of Missouri. *R. M. O'Neal, O. G. Abrahams, M. B. Kohrs, and D. L. Eklund*

international nutrition

1167 Some factors related to obesity in the Japanese sumo wrestler. *T. Nishizawa, I. Akaoka, Y. Nishida, Y. Kawaguchi, E. Hayashi, and T. Yoshimura*

1175 **announcements**

1176 **erratum**

Number 11, November 1976

presidential address

1179 American Society of Clinical Nutrition: its state of health in 1976. *C. S. Lieber*

letter to the editor

1183 Allergic reactions to chocolate. *C. A. Frazier*

original communications

1184 Independence of the effects of cholesterol and degree of saturation of the fat in the diet on serum cholesterol in man. *J. T. Anderson, F. Grande, and A. Keys*

1190 Effect of anti-insulin serum on the hepatic lipid metabolism of BHE rats. *C. D. Berdanier and E. T. Koh*

1196 Comparison of patterns of fecal bile acid and neutral sterol between children and adults. *C. T. L. Huang, J. T. Rodriguez, W. E. Woodward, and B. L. Nichols*

1204 Short term study of sucrose polyester a nonabsorbable fat-like material as a dietary agent for lowering plasma cholesterol. *R. W. Fallat, C. J. Glueck, R. Lutmer, and F. H. Mattson*

1216 Relationships between cigarette smoking, oral contraceptives, and plasma vitamins A, E, C, and plasma triglycerides and cholesterol. *D. L. Yeung*

1222 Two types of nutritional rickets in infants. *P. Lapatsanis, G. Makaronis, C. Vretos, and S. Doxiadis*

perspectives in nutrition

1227 World trends in infant feeding. *D. B. Jelliffe*

nutrition survey

1238 Factor analysis of nutritional status data from Ten State Nutrition Survey. *H. A. Guthrie and G. M. Guthrie*

international nutrition

1242 Physical and intellectual development in Philippine children fed five different dietary staples. *V. B. Guzman, H. A. Guthrie, and G. M. Guthrie*

symposium

1253 Recent advances in vitamin D: clinical implications. *Guest editor—F. Bronner*
1257 Introduction. *F. Bronner*
1258 Metabolism of vitamin D: current status. *H. F. DeLuca*
1271 Vitamin D, its metabolites and analogs: a review of the structural requirements for biological activity. *D. A. Procsal, W. H. Okamura, and A. W. Norman*
1283 Advances in vitamin D metabolism as they pertain to chronic renal disease. *J. W. Coburn, D. L. Hartenbower, and A. S. Brickman*
1300 Morphological effects of vitamin D and its analogs on bone. *S. T. Teitelbaum*
1307 Vitamin D deficiency and rickets. *F. Bronner*
1315 Familial forms of vitamin D-resistant rickets revisited. X-linked hypophosphatemia and autosomal recessive vitamin D dependency. *D. Fraser and C. R. Scriver*

1330 **announcements**

Number 12, December 1976

letter to the editor

1331 Copper, zinc, and manganese content of four amino acid and protein hydrolysate preparations. *R. C. Bozian and C. Shearer*

original communications

1333 Pantothenic acid, coenzyme A, and human chronic ulcerative and granulomatous colitis. *J. J. Ellestad-Sayed, R. A. Nelson, M. A. Adson, W. M. Palmer, and E. H. Soule*
1339 Acute effect of ascorbic acid infusion on carbohydrate tolerance. *J. A. Scarlett, A. Zeidler, H. Rochman, and A. Rubenstein*
1343 Nitrogen retention and plasma amino acids of adults who consumed isonitrogenous diets containing rice and milk or wheat versus their constituent amino acids. *H. E. Clark, W-H. Moon, L. B. Bailey, and M. Panemangelore*
1353 Plasma amino acids and nitrogen retention of human subjects who consumed isonitrogenous diets containing rice and wheat or their constituent amino acids with and without additional lysine. *L. B. Bailey and H. E. Clark*
1359 Urinary creatinine excretion and lean body mass. *G. B. Forbes and G. J. Bruining*
1367 Plasma and urinary amino acids and selected sulfur metabolites in young men fed a diet devoid of methionine and cystine. *F. L. Lakshmanan, W. D. A. Perera, N. S. Scrimshaw, and V. R. Young*
1372 Vitamin A absorption in ascariasis. *D. Mahalanabis, K. N. Jalan, T. K. Maitra, and S. K. Agarwal*
1376 Adequacy of vitamin B_6 supplementation during pregnancy: a prospective study. *L. Lumeng, R. E. Cleary, R. Wagner, P-L. Yu, and T-K. Li*

nutrition survey

1384 Daily nutritional intake and serum lipid levels. The Tecumseh study. *A. B. Nichols, C. Ravenscroft, D. E. Lamphiear, and L. D. Ostrander, Jr.*

methods in nutrition

1393 The fate of folate polyglutamates in meat during storage and processing. *B. Reed, D. Weir, and J. Scott*

international nutrition

1397 Enterobacteriaceae in the jejunal microflora: prevelance and relationship to biochemical and histological evaluations in healthy Colombian men. *J. R. Cain, L. G. Mayoral, H. Lotero, O. Bolaños, and E. Duque*

symposium

1409 Introduction. *M. H. Floch*
1409 Diet, bacteria, and the colon
1410 Bacteria, diet, and large bowel cancer. *B. S. Drasar and D. J. A. Jenkins*
1417 Colon cancer and diet, with special reference to intakes of fat and fiber. *A. R. P. Walker*
1427 Natural fiber and bowel dysfunction. *A. M. Connell*
1432 The reproducibility of dietary intake data in a prospective study of gastrointestinal cancer. *A. Nomura, J. H. Hankin, and G. G. Rhoads*
1437 The effect of dietary fiber supplementation in man. I. Modification of eating habits. *N. Kahaner, H-M. Fuchs, and M. H. Floch*
1443 The effect of dietary fiber supplementation in man. II. Alteration in fecal physiology and bacterial flora. *H-M. Fuchs, S. Dorfman, and M. H. Floch*
1448 The production of urinary phenols by gut bacteria and their possible role in the causation of large bowel cancer. *E. Bone, A. Tamm, and M. Hill*
1455 Metabolic epidemiology of colon cancer: enzymatic activity of fecal flora. *A. Mastromarino, B. S. Reddy, and E. L. Wynder*
1461 The binding of the components of mixed micelle to dietary fiber. *M. Eastwood and L. Mowbray*
1468 Changes in fecal composition and colonic function due to cereal fiber. *J. H. Cummings, M. J. Hill, D. J. A. Jenkins, J. R. Pearson, and H. S. Wiggins*
1474 The effect on intestinal transit and the feces of raw and cooked bran in different doses. *J. B. Wyman, K. W. Heaton, A. P. Manning, and A. C. B. Wicks*
1480 Fecal characteristics contrasted in the irritable bowel syndrome and diverticular disease. *J. A. E. Goy, M. A. Eastwood, W. D. Mitchell, J. L. Pritchard and A. N. Smith*

1485 **announcements**

1487 **subject index**

1494 **author index**